Building name:
Location:
Date of Assessment:
Prepared by:
Square Footage (specify gsf or usf):
Mission Dependency: Mission Critical Mission Dependent Not Mission Dependent
Commissioning/Recommissioning:   Completed - date:   Not completed   Not Applicable
Assessment Report attached? $\square_{Yes}$ $\square_{No}$ The Assessment Report should include a comprehensive list of the building's strengths, weaknesses
and deficiencies; a prioritized list of deficiencies that can be addressed by minor alterations or repairs (considering payback over the life cycle);
and a status summary indicating whether a major renovation or replacement of the facility (and estimated time frame) is recommended by the
assessment team.

Building Attribute	Attribute Definition	Building Condition Scoring Criteria							
		10	20	35	50	65	80	Score	
A. Energy Performance	Energy Efficiency Establish a whole building performance target that takes into account the intended use, occupancy, operations, and other energy demands. Establish a baseline building performance rating per the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2007, Energy Standard for Buildings Except Low- Rise Residential Buildings. Reduce Energy Usage Intensity (EUI) by 20% below 2003 baseline, or receive a score of 75 or	Establish an energy usage baseline using historic data (2003 EUI) OR Establish an energy usage baseline using ASHRAE/IESNA 90.1-2007 OR Evaluate using Energy Star Portfolio Manager	An Energy Conservation Plan has been developed	Reduction in EUI of > 5%	Reduction in EUI of > 10%	Reduction in EUI of > 15% OR Achieved a score of 69 or higher in ESPM or equivalent Labs21 Benchmarking Tool score for laboratory buildings.	Reduction in EUI of > 20%, OR Achieved a score of 75 or higher in ESPM or equivalent Labs21 Benchmarking Tool score for laboratory buildings.		

	Laisting Building Issuessment 1001									
Building	Attribute Definition			<b>Building Co</b>	ondition Scori	ng Criteria				
Attribute	higher in Energy Star Portfolio Manager (ESPM).									
		5	10	15	25	30	40			
	Measurement & Verification	Building level metering installed for electricity, and where required by OPDIV energy plan advanced metering	Electrical meter performance data collected, compiled and used to evaluate Energy Projects	Building level metering installed for utilities defined in EO 13423, EPAct 2005 and EISA 2007, and where required by OPDIV energy plan advanced metering	All utility meter performance data collected compiled and used to evaluate Energy Projects performance.	Data entered in Energy Star Portfolio Manager	Data entered in High Performance Buildings Database			
		0	5	10	15	25	30			
	Renewable Energy ( Bonus)	No renewable energy purchased (consumed) & no on site generation.	Less than 3% of Renewable Energy (thermal, mechanical or electrical) is purchased for use in the facility.	3% or more of Renewable Energy (thermal, mechanical or electrical) is purchased for use in the facility	3% or more electricity consumed is from renewable sources and 1.5 % is from new sources (online after Jan 1, 1999)	Implemented cost effective on site renewable energy generation projects.	3% or more electricity consumed is from renewable sources and 1.5 % is from new sources (online after Jan 1, 1999) and Implemented cost effective on site renewable energy generation projects.			
		5	10	20	3	0	40	Score		
B. Protect & Conserve Water	Indoor Water Effectiveness of indoor water conservation. The water baseline, for buildings with plumbing fixtures installed in 1994 or later, is 120% of the Uniform Plumbing Codes 2006 or the International Plumbing Codes of 32006 fixture performance requirements. The water baseline for plumbing fixtures older than 1994	FY2007 water use intensity (WUI) established along with a water management plan. Procedures in place for following the indoor best management practices as developed by FEMP 1	Building level water meter installed or estimated annual water use baseline developed for the building.	Employs strategies that in aggregate use a minimum of 10% less potable water than the indoor water use baseline	_	that in aggregate use less potable water	Employs strategies that in aggregate use a minimum of 20% less potable water than the indoor water use OR 20% reduction in measured potable water use compared to building use in 2003 or a year thereafter with water quality data.			

Building	Attribute			Building Co	ondition Scoring Criteria		
Attribute	Definition			8	0		
	is 160% of the Uniform Plumbing Codes of 2006 or the International Plumbing Codes 2006 fixture performance requirements.						
		5	10	20	30	40	
	Outdoor Water Effectiveness of outdoor water conservation	FY2007 water use intensity (WUI) established along with a water management plan. Procedures in place for following the outdoor best management practices as developed by FEMP <sup>1</sup>	Uses water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 20% over that consumed by conventional means (plant species and plant densities) OR Reduces outdoor potable water consumption by a minimum of 20% compared to measured water use in 2003 or a year thereafter with quality water data	Uses water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 30% over that consumed by conventional means (plant species and plant densities) OR Reduces outdoor potable water consumption by a minimum of 30% compared to measured water use in 2003 or a year thereafter with quality water data	Uses water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 40% over that consumed by conventional means (plant species and plant densities OR Reduces outdoor potable water consumption by a minimum of 40% compared to measured water use in 2003 or a year thereafter with quality water data	Uses water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 50% over that consumed by conventional means (plant species and plant densities), OR Reduces outdoor potable water consumption by a minimum of 50% compared to measured water use in 2003 or a year thereafter with quality water data, OR No use of potable irrigation water	
						20	
	Process Water Effectiveness of Process water conservation, where applicable					Cost effective conservation measures are in place to reuse or reclaim water used in increasing energy efficiency, such as cooling towers, boilers, etc.	

Building	Attribute			Ruilding Co	ondition Scoring Criteria		
Attribute	<b>Definition</b>			Dunuing Co	sharron Scoring Criteria		
1 ttti ibutc	Beimition					20	
	Maintain/restore site hydrology ( Bonus)					Where redevelopment affects site hydrology, maintain or restore the hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies. (EISA Section 438)	
		0	5	10	15	20	Score
C. Enhance Indoor Environmental Quality	Thermal Comfort Effectiveness of measures to enhance indoor environmental quality for thermal comfort	Building does not meet current ASHRAE Standard 55-2004 Thermal Environmental Conditions for human Occupancy. Complaints from occupants regarding thermal comfort levels are daily.	Building does not meet current ASHRAE Standard 55-2004 Thermal Environmental Conditions for human Occupancy. Complaints from occupants regarding thermal comfort levels are weekly.	Building does not meet current ASHRAE Standard 55-2004 Thermal Environmental Conditions for human Occupancy. Complaints from occupants regarding thermal comfort levels are monthly.	Building does not meet current ASHRAE Standard 55-2004 Thermal Environmental Conditions for human Occupancy. Complaints from occupants regarding thermal comfort levels are rare.	Occupancy survey performed, or thermal comfort parameters have been measured, and meet current ASHRAE Standard 55-2004 Thermal Environmental Conditions for Human Occupancy.	
		0	5	10	15	20	
	Ventilation Effectiveness of measures to enhance indoor environmental quality for ventilation	Building does not meet current ASHRAE Standard 62.1- 2007 Ventilation for Acceptable Indoor Air Quality. Verification of design ventilation rates (testing &	Building does not meet current ASHRAE Standard 62.1- 2007 Ventilation for Acceptable Indoor Air Quality. Verification of design ventilation rates (testing &	Building does not meet current ASHRAE Standard 62.1- 2007 Ventilation for Acceptable Indoor Air Quality. Verification of design ventilation rates (testing &	Building does not meet current ASHRAE Standard 62.1-2007 Ventilation for Acceptable Indoor Air Quality. Verification of design ventilation rates (testing & balancing) performed within the last 5 years. O&M procedures in place for checking air supply and exhaust systems. Occupant complaints are rare.	Verification of design ventilation rates performed through recommissioning or retrocommissioning, and meets current ASHRAE Standard 62.1-2007 Ventilation for Acceptable Indoor Air Quality established ranges per climate	

Building	Attribute			Building Co	ndition Scoring Criteria				
Attribute	Definition								
		balancing) not performed.	balancing) not performed. O&M procedures in place for checking air supply and exhaust systems.	balancing) not performed. O&M procedures in place for checking air supply and exhaust systems. Occupant complaints are rare.		zone.			
		0	5	10	15	20			
	Moisture Control Effectiveness of measures implemented for controlling moisture flows and condensation to prevent building damage and mold contamination	Severe moisture and or condensation damage and evidence of mold in the building. No policy in place for monitoring moisture occurrences. No strategy in place for controlling moisture flows and condensation.	Recurring moisture and or condensation problems in various areas in the building. Some evidence of mold in the building. No policy in place for monitoring moisture occurrences. No strategy in place for controlling moisture flows and condensation.	Recurring moisture and or condensation problems in various areas in the building. No evidence of mold in the building. No policy in place for monitoring moisture occurrences. No strategy in place for controlling moisture flows and condensation.	Minor moisture and or condensation occurrences. No policy in place for monitoring moisture occurrences. No strategy in place for controlling moisture flows and condensation.	Established and implemented moisture control strategy for controlling moisture flows and condensation to prevent building damage and mold contamination. All necessary repairs have been completed to remove prior contamination.			
		0	5	10	15	20			
	Daylighting or Lighting Controls Effectiveness of measures implemented to control lighting or daylighting.	No measures have been implemented.	Accessible lighting controls (e.g., accessible manual lighting controls, glare control and automatic dimming controls) are provided for 10% of regularly occupied building space, OR	Accessible lighting controls (e.g., accessible manual lighting controls, glare control and automatic dimming controls) are provided for 30% of regularly occupied building space, OR	Accessible lighting controls (e.g., accessible manual lighting controls, glare control and automatic dimming controls) are provided for 40% of regularly occupied building space, OR 40% of spaces have a minimum daylight factor of 2%.	Accessible lighting controls (e.g., accessible manual lighting controls, glare control and automatic dimming controls) are provided for 50% of regularly occupied building space and occupancy sensors and/or light sensors for appropriate spaces such as bathrooms, conference rooms, etc.			

Existing Building Hissessment 1001								
Building	Attribute			Building Co	ondition Scoring Criteria			
Attribute	Definition							
120010	20111101		10% of spaces have a minimum daylight factor of 2%.	30% of spaces have a minimum daylight factor of 2%.		OR 50% of spaces occupied for critical visual tasks have a minimum daylight factor of 2%.		
		0	5	10	15	20		
	Low Emitting Materials Effectiveness of measures implemented for the procurement of low emitting materials for maintenance, cleaning and pest management, including adhesives, sealants, paints, carpet systems, furnishings, cleaning products, and pest management products.	No procurement policy in place regarding the use of low emitting materials for maintenance, cleaning or pest management	Procurement policy in place for use of low emitting materials for maintenance, cleaning, or pest management, but not all.	Procurement policy in place regarding use of low emitting materials for maintenance, cleaning, and pest management.	Procurement policy in place and implemented for use of low emitting materials for maintenance, cleaning, or pest management, but not all.	Procurement policy in place and implemented for use of low emitting materials for maintenance, cleaning, and pest management. Prohibit smoking within building and within 25 feet of all building entrances, operable windows and building ventilation intakes.		
	management products.	0	5	8	12	15	Score	
D. Environmental	Recycled Content For EPA-designated materials used in operation and	No EPA designated materials used in the building meet	Less than half of the EPA designated materials meet or	Half of the EPA designated materials meet or exceed recycled	More than half of the EPA designated materials meet or exceed recycled content recommendations.	All EPA designated materials meet or exceed recycled content		
Impact of Materials	maintenance of the building, and new furnishings, use products that meet or exceed EPA's recycled content recommendations	recycled content recommendations.	exceed recycled content recommendations.	content recommendations.		recommendations, or no EPA designated materials are used in the building.		
		0	5	8	12	15		
	For materials used in operation and maintenance of the building and furnishings that are not EPA designated materials, the recycled content is such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10%	No non- designated materials used in the building have recycled content.	Recycled content of non-designated materials used is less than 5% based on total values of materials used in the building.	Recycled content of non-designated materials used is about 5% based on total values of materials used in the building.	Recycled content of non-designated materials used is 5-10% based on total values of materials used in the building.	Recycled content of non-designated materials meets or exceeds 10% based on total values of materials used in the building.		

Existing building rissessment 1001								
Building	Attribute			Building Co	ndition Scoring Criteria			
Attribute	Definition							
1100110400	(based on cost) of the total value of the materials used in the building.							
		0	2	4	8	10		
	BioBased Content For USDA-designated materials used in operation and maintenance of the building and new furnishings, use products meeting or exceeding USDA's biobased content recommendations.	No USDA- designated materials meet biobased content recommendations.	Designated materials have some biobased content but less than 50% of recommended amount.	Biobased content of designated materials is 50% of recommended amount.	Designated materials have biobased content greater than 50% of recommended amount.	All USDA-designated materials used in the building meet or exceed biobased content recommendations, or no designated materials will be used in the building		
		0	2	4	8	10		
	For other materials used in operation and maintenance of the building and new furnishings, use biobased products made from rapidly renewable resources and certified sustainable wood products.	No biobased products made from rapidly renewable resources or certified sustainable wood products are used.	Some non-designated biobased products made from rapidly renewable resources or certified sustainable wood products are used but renewable or certified products will be less than 50%.	About 50% of the non-designated biobased products used are made from rapidly renewable resources or certified sustainable wood.	More than 50% of the non-designated biobased products used in the building are made from rapidly renewable resources or certified sustainable wood.	For non-designated materials used in the building, all biobased products are made from rapidly renewable resources and certified sustainable wood products, or no materials used in the building can be made from biobased products.		
		0	5	10	15	20		
	Construction Waste Identify local recycling and salvage operations that process construction waste from building operation and maintenance, minor repairs and renovations and discarded furnishings. Recycle or salvage at least 50	No attempt to identify local recycling and salvage operations that process building related waste have been identified, or building records contain no	Local recycling and salvage operations have been identified that can process some of the building related waste but less than 50% of the total amount. Less than 25 % of	Local recycling and salvage operations have been identified that can process 50% of the total amount of the building related waste.  25 % of the wastes for which	Local recycling and salvage operations have been identified that can process more than 50% of the total amount of the building related waste. 26-49 % of the wastes for which markets or on-site recycling opportunities exist are recycled or salvaged.	Local recycling and salvage operations have been identified that can process building related wastes. At least 50 % of the wastes for which markets or on-site recycling opportunities exist are recycled or salvaged.		

Zinoting Duriang Hoseosment 1001									
Building	Attribute			Building Co	ndition Scori	ng Criteria			
Attribute	Definition								
	percent of construction, demolition and land clearing waste, excluding soil, from building operation and maintenance; minor repairs and renovations; and discarded furnishings where markets or on-site recycling opportunities exist.	documentation of attempts to identify such operations or demonstration of non-availability. Opportunities exist yet no wastes are recycled or salvaged.	the wastes for which markets or on-site recycling opportunities exist are recycled or salvaged.	markets or on-site recycling opportunities exist are recycled or salvaged.					
		0	5	15	2	20	30	Score	
	Ozone Depleting Compounds Eliminate the use of ozone depleting compounds in the building where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life cycle impacts.	No ozone depleting compounds (ODC) used in the building have been eliminated or replaced with alternatives, where alternative environmentally preferable products are available for these compounds. There is no inventory of ODC containing equipment in building.	Less than 50% of the ozone depleting compounds used in the building have been eliminated or replaced with alternatives where environmentally preferable products are available for these compounds. An inventory of ODC containing equipment has not been completed.	About 50% of the ozone depleting compounds used in the building have been eliminated or replaced with alternatives where environmentally preferable products are available for these compounds. An inventory of ODC containing equipment has not been completed.	More than 50% of t compounds used in been eliminated or alternatives where e preferable products these compounds. ODC containing eq completed.	the building have replaced with environmentally are available for An inventory of	All use of ozone depleting compounds in the building have been eliminated or replaced with alternatives where alternative environmentally preferable products are available.		
		5	10	20	30	40	50	Score	
E. Economics	Cost Current and avoidable potential costs associated with ownership and use of buildings	Cost to incorporate the Guiding Principles is greater than 11% of Present Replacement Value (PRV)	Cost to incorporate the Guiding Principles is 7% to 11% of PRV	Cost to incorporate the Guiding Principles is 3% to 7% of PRV	Cost to incorporate the Guiding Principles is 1% to 3% of PRV	Cost to incorporate the Guiding Principles is 0.5% to 1% of PRV	Cost to incorporate the Guiding Principles is less than 0.5% of PRV		

Building	Attribute			Building Co	ndition Scori	ng Criteria		
Attribute	Definition							
		5	10	20	30	40	50	Score
	Payback Potential payback for improvements over the remaining life cycle or lease	Payback period is greater than the remaining useful life of the building, or 10 years based on Life Cycle Cost (LCC) of the improvements	Payback period is 7 to 10 yrs based on LCC of the improvements	Payback period is 5 to 7 yrs based on LCC of the improvements	Payback period is 3 to 5 yrs based on LCC of the improvements	Payback period is 1 to 3 yrs based on LCC of the improvements	Payback period is less than 1 yr based on LCC of the improvements	
		0	10	30	4	0	50	Score
F. Conformance with Local Environmental Requirements	Environmental Regulations Facility/Building is in compliance with all applicable federal, state and local environmental regulations (e.g., compliance with fuel storage tanks system, air emissions such as boilers and emergency generators, illicit discharges to storm and/or sanitary sewer, NPDES and Sanitary Discharge permits)	Facility/building management has NOT established procedures for an environmental compliance program through the facility/organizati on's EMS as required by Executive Order 13423	Facility/building management has established an environmental compliance program through the facility/organizati on's EMS that includes (a) procedures to identify and account for applicable legal and other requirements, (b) protocols to periodically evaluate compliance with those applicable legal, and (c) a system for implementing corrective action	Facility/building management met criteria in Column B AND has conducted evaluations of compliance with applicable legal and other requirements. The facility/organizati on has not completed the evaluations for all of the facility/organizati on, or has not initiated corrective actions.	ility/building management criteria in Column B and C AND has completed evaluations of compliance with applicable legal and other requirements for the entire facility/building, Corrective actions have been initiated or have been scheduled (as appropriate considering technical and budgetary constraints).		Facility/Building is in full compliance with all applicable federal, state and local environmental regulations	
		0	1	5	3	0	50	Score
	Environmental Management System (EMS) Executive Order (EO) 13148 required all Federal Agencies to	Facility/building management has not established requirements/proc edures to address applicable	Facility/building ma established requirer address applicables as required by Exec through the facility/ EMS, including pro	anagement has nents/procedures to sustainable practices utive Order 13423 (organization's	Facility/building management has met all the criteria in Column B, AND has incorporated at least one of the applicable sustainable practices through the EMS, AND the facility/organization has established an		Facility/building management has met all the criteria in Column B and C AND Facility/organization has verified	

Building	Attribute		Building Condition Scoring Criteria							
Attribute	Definition									
	determine 'appropriate' facilities for implementing EMS. EO 13423 requires that EMSs serve as the primary mechanism for achieving compliance with all aspects of the order	sustainable practices as required by Executive Order 13423 through the facility/organizati on's EMS.	objectives and target as appropriate, monitoring, training, and management review, but has not implemented the requirements/procedures	implementation schedule to complete incorporation of the remainder of the applicable sustainable practices through the EMS.	conformance and performance through monitoring and management review OR Facility/Building in not included in the HHS 'appropriate' facility list and is not required to have an EMS					

 $<sup>^{\</sup>textbf{1}}\ www1.eere.energy.gov/femp/water\_fedrequire.html$ 

<sup>&</sup>lt;sup>2</sup> 1992 Energy Policy Act fixture performance requirements: showerheads: 2.5 gallons per minute at 80 psi; urinals: 1 gallon per flush; faucets: 2.2 gallons per minute at 60 psi; toilets: 1.6 gallons per flush

Building Attribute	Building Condition	on Scoring Criteria
	Achieved Score	Maximum Score
GUIDING PRINCIPLES		
A. Energy Performance		
Energy Efficiency		80
Measurement & Verification		40
B. Protect & Conserve Water		
Indoor Water		40
Outdoor Water		40
Process Water		20
C. Enhance Indoor Environmental Quality		
Thermal Comfort		20
Ventilation		20
Moisture Control		20
Daylighting or Lighting Controls		20

Building Attribute	Building Condition Scoring Criteria
Low Emitting Materials	20
D. Environmental Impact of Materials	
Recycled Content	30
BioBased Content	20
Construction Waste	20
Ozone Depleting Compounds	30
CHIDING BRINGIBLES SCORE	420
GUIDING PRINCIPLES SCORE	420

Non-Guiding Principles	
Economics	
Cost	50
Payback	50
Conformance with local Environmental Requirements	
Environmental Regulations	50
Environmental Management Systems (EMS)	50
Bonus Categories	
Renewable Energy	30
Maintain/Restore Hydrology	20
TOTAL NON-GUIDING PRINCIPLES AND BONUS SCORE	250
Total Score	670

The following instructions are designed to help in the collection and recording of sustainable actions achieved on an applicable capital asset. The tool is designed to collect and measure the Department's achievement in meeting the *Guiding Principles* as described in Executive Order 13423 and the Energy Independence and Security Act of 2007 (EISA). There are four (4) building attributes that are evaluated and rated under this evaluation and prioritization matrix which follows the *Guiding Principles* and can score up to 420 points. Additional points can be achieved through non-Guiding Principle and bonus achievements that can add up to 250 points. The total score achieved will form the Sustainability Index (SI). The maximum SI is a rating of 670 points:

Guiding Principle Achievements (Minimum requirements)

- A. Energy Performance (120 points)
- B. Protect and Conserve Water (100 points)
- C. Enhance Indoor Air Quality (100 points)
- D. Environmental Impact of Materials (100 points)

### Non-Guiding Principle Achievements

- E. Economics (100 points)
- F. Conformance with Local Environmental Requirements (100 Points)

#### Bonus

Renewable Energy (30 points)
Maintain/Restore Hydrology (20 points)

The SI will be one of the elements along with Mission Dependency and Facility Conditions Index used to support decision making.

#### • General Information

- A building is exempt from having to complete this tool if the building receives a third party green building certification from an ANSI-accredited standards developer and the contract for design was awarded prior to October 1, 2008. The building is considered meeting the intent of the *Guiding Principles* (100%).
- EISA section 432, paragraph 3(A) requires a comprehensive energy and water evaluation be completed every 4 years. Currently building condition assessments are required on buildings every five years. It is suggested that to save money and effort that the building assessment and energy and water evaluations be completed concurrently on a four year cycle.

- The highest priority buildings in the existing buildings inventory are those owned assets 5,000 gross square or more with the exception of housing. See Appendix L and Appendix D of the Sustainable Buildings Implementation Plan (SBIP) December 31, 2008 for asset types and definitions of applicable buildings.
- o In reporting to OMB, all owned and direct leased buildings in the Federal Real Property Profile (FRPP) are considered in the Department's existing building inventory.
- All projects as defined in the SBIP with design awards after October 1, 2008 must incorporate the Guiding Principles 100%.
- O Highlight each achievement and record the score on Appendix H. An asset must achieve full compliance with the *Guiding Principles* to score building as meeting in FRPP. An existing building can achieve a top score of 670 by achieving a 100% score for Non-Guiding Principle achievements.
- The scores under the Building Condition Scoring Criteria are cumulative. The achieved score of 20 includes that accomplished under the 10 and the score of 30 includes that achieved under the 20 and 10. The high score achieved under the criteria will have achieved every part within the scoring criteria.
- Asset Information on EB Assessment Tool
  - o Include the asset information as recorded in ARIS.

### • Energy Performance (120 points)

- Energy Efficiency
  - Established an energy usage baseline using historical data (2003 EUI)
  - Established an energy usage baseline using ASHRAE.IESNA 90.1-2007
  - Evaluated the buildings energy use with the Energy Star Portfolio Manager (ESPM) located at:
     <a href="http://www.energystar.gov/index.cfm?c=eligibility.bus\_portfoliomanager\_eligibility">http://www.energystar.gov/index.cfm?c=eligibility.bus\_portfoliomanager\_eligibility</a>
  - An Energy Conservation Plan (ECP) shall consist of an estimate of the future energy performance of the building and a specific description of the energy saving projects or practices that will reduce the Energy Usage Intensity (EUI). The evaluation of each project shall use life cycle costing. The ECP shall include a schedule listing the projects and an estimated time of completion to meet the reduction of EUI goals.
- o Measurement and Verification
  - E.O. 13423, sec. 2(a) Metering. To the maximum extent practicable, agencies shall install metering devices that measure consumption of potable water, electricity, and thermal energy in Federal buildings and

other facilities and grounds. Data collected shall be incorporated into Federal tracking systems and be made available to Federal facility managers. Agencies should consider inclusion of metering requirements in all ESPCs and UESCs, as appropriate.

- EISA Section 434(b), Metering, amends Section 543(e)(1) of NECPA (42 U.S.C. 8253(e)(1)) by inserting after the second sentence the following: "Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam, in accordance with guidelines established by the Secretary under paragraph (2)."
- The High Performance Buildings Database website is: http://www.eere.energy.gov/buildings/database/

### Renewable Energy

 A 30 point bonus is achievable with the installation of an on site renewable energy project and entering a renewable energy purchase contract. Applicable systems would include solar, wind, geothermal, low-impact hydro, biomass and bio-gas strategies.

## • Protect and Conserve Water (100 points)

- Verify the installation of water conserving measures for indoor and outdoor systems.
- Verify a water management plan and FEMP best management practices for water conservation are in place.
- Verify installation of water meters or estimate annual building water use baseline.
- Verify use of water efficient landscape or use of recycled water for irrigation.
- Verify if cost effective measures are in place for process water for equipment, cooling towers, boilers, etc.
- Where site redevelopment such as a paving project occurs, a 20 point bonus is achievable when the project maintains or restores the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies. (EISA Section 438)

#### • Enhance Indoor Environmental Quality (100 points)

- The measurement of ventilation, thermal comfort, moisture control, lighting (controlled and natural) and low emitting materials.
- o Verify thermal comfort and indoor air quality for building occupants.
- Verify building design ventilation rates and building system performance.
- Verify the building has an established and implemented moisture control strategy.
- Assess if location of manual light, glare and dimming controls are accessible to building occupants or calculate percentage of space having a minimum natural daylight factor of 2%.

 Verify a procurement policy has been developed and implemented for use of low emitting materials for maintenance, cleaning, and pest management.

### • Environmental Impact of Materials (100 points)

- Confirm policies are in place to ensure use of these materials/products when cost and performance expectations can be met.
- Record the effort in meeting recycled content, biobased content, construction waste, and ozone depleting compounds for both existing building renovations and operations and maintenance activities.

## • Economics (100 points)

Record the cost and payback in achieving and meeting the *Guiding Principles* as a measure of a facility Replacement Value and Life Cycle
 Cost.

#### • Conformance with Local Environmental Requirements: (100 points)

#### o Environmental Regulations (50 points):

- To achieve the highest score, a facility/building manager must demonstrate that there are no violations of environmental regulations. This can only be done if building/facility has documented procedures in place to identify and account for applicable environmental requirements.
- It is expected that this will require that facility managers, environmental managers (including Environmental Management Systems managers for appropriate facilities that have an official EMS) and supervisors to coordinate and develop the plans and procedures to address conformance. This aspect is required regardless of whether the facility has an EMS or not.
- Points will be awarded under this attribute progressively from (0 points) for non-compliant or lacking procedures and evaluations protocols; to, full compliance with applicable federal, state and local environmental regulations (50 points).
- Examples of potential violation include:
  - lack of controls on to prevent exceedence of discharge limits or
  - failure to meet discharge limits from a process or batch discharge such as cage wash systems or cleaning of pipes,
  - potable water cross connections,
  - cross connections with sanitary or stormdrain systems,
  - exceedance of air emission from regulated sources such as emergency generators, boilers, fume hoods or,
  - improper storage of hazardous chemicals,

- non-compliance with fuel storage tank (above ground and underground) provisions,
- failure to maintain proper operating logs for regulated equipments and mechanical systems

### o Environmental Management System (EMS) (50 points)

- Executive Order (EO) 13148 required all Federal Agencies to determine 'appropriate' facilities for implementing EMS. EO 13423 requires that EMSs serve as the primary mechanism for achieving compliance with all aspects of the order.
- Not all facilities are required to have an EMS and if this is the case, then the full 50 Points will be scored for this attribute.
- In the case where an EMS is required (HHS declared appropriate facility), points will be awarded on a progressive basis from 0 points to a maximum of 50.

To achieve favorable ratings in this area, it is expected that the facility/building management will have met with the Environmental Management System (EMS) manager and implemented requirements/procedures to address applicable sustainable practices as required by Executive Order 13423 through the facility/organization's EMS, including procedures for setting objectives and targets as appropriate, monitoring, training, and management review.